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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,034	02/18/2004	Tomoatsu Kinoshita	09792909-5844	2816

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EXAMINER

NGUYEN, HOAN C

ART UNIT PAPER NUMBER

2871

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,034

Applicant(s)

KINOSHITA ET AL.

Examiner

HOAN C. NGUYEN

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 3-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: NPL documents

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I and Species A in the reply filed on Dec. 30, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Mr. Metzger elected claims 1-2 and 9-10 for species A through phone interview on March 9, 2006.

Claims 3-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on Dec. 30, 2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Hiroshi et al. (JP403282427)

Hiroshi et al. teach (Fig. 2) a liquid crystal display comprising:

- a first substrate on which a first electrode for driving liquid crystal inherently is formed;
- a second substrate on which a second electrode for driving liquid crystal is inherently formed; and
- a liquid crystal layer held between said first substrate and said second substrate;

wherein

- at least one substrate of said first substrate and said second substrate is a plastic substrate; and
- a hole 5 serving as a liquid crystal inlet passing through at least one substrate of said first substrate and said second substrate is formed on the substrate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (US 20030089991A1) in view of Masaru (JP2001183682).

Regard to claims 1 and 9, Yamazaki et al. teach (Fig. 6) a liquid crystal display comprising:

- a first substrate on which a first electrode for driving liquid crystal is formed;

- a second substrate on which a second electrode for driving liquid crystal is formed; and
- a liquid crystal layer held between said first substrate and said second substrate; wherein at least one substrate of said first substrate and said second substrate is a plastic substrate; and

wherein

- said first substrate and said second substrate are glued together, and then the glued first and second substrates are cut out into panels employing laser cutting;

However, Yamazaki et al. fail to disclose a liquid crystal display with an opening for passing through either said first substrate or said second substrate is formed on a portion serving as a liquid crystal inlet prior to gluing said first substrate and said second substrate; and wherein a notched portion in which at least a part of said opening is employed is formed on a portion serving as said liquid crystal inlet of said panel.

Masaru teaches a liquid crystal display with an opening for passing through either said first substrate or said second substrate is formed on a portion serving as a liquid crystal inlet prior to gluing said first substrate and said second substrate; and wherein a notched portion in which at least a part of said opening is employed is formed on a portion serving as said liquid crystal inlet of said panel.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display as Yamazaki et

Art Unit: 2871

al. disclosed with an opening for passing through either said first substrate or said second substrate is formed on a portion serving as a liquid crystal inlet prior to gluing said first substrate and said second substrate; and wherein a notched portion in which at least a part of said opening is employed is formed on a portion serving as said liquid crystal inlet of said panel for raising productivity as taught by Masaru (paragraph 19).

2. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (US 20030089991A1) in view of Masaru (JP2001183682) as applied to claims 1 and 9, and in further view of Ono (JP354114256).

Yamazaki et al. and Masaru fail to disclose the feature of claim 2 and 10. However, Masaru teaches the LC inlet holes 14/24/34 to be right at inner side of sealing pattern 12.

Ono teaches a liquid crystal display with the sealing width about 0.2-0.4mm for satisfying sealing strength, air tight power and evenness of inter-substrate spacing; therefore, the LC inlet notched portions or holes 14/24/34 must be formed with a depth of 10 μ to 1 mm from the substrate end edge on which said notched portion or hole is formed toward the inner side of the substrate so that liquid crystal can be injected.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display as Yamazaki et al. disclosed with the LC inlet notched portions or holes must be formed with a depth of 10 μ to 1 mm from the substrate end edge corresponding to the sealing width for

injecting liquid crystal. The sealing width about 0.2-0.4mm for satisfying sealing strength, air tight power and evenness of inter-substrate spacing as taught by Ono.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Umetsu et al. (US6781089 B2) disclose an apparatus for cutting an electrical wiring line includes a laser generator for generating a laser beam, an optical beam branching element for branching a laser beam generated by the laser generator into a plurality of branch beams, and a condenser element for condensing the branch beams branched by the optical beam branching element.

Katsura (US 20010015786 A1) disclose a method of manufacturing a liquid crystal display device with the seal width is set so as to be from 1.2 to 1.5 mm after overlapping and thermal pressing.

ASAKURA (US 6531329 B2) disclose a method of manufacturing a liquid crystal display panel of high quality without wasting liquid crystal material.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim H. Robert can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HOAN C. NGUYEN
Examiner
Art Unit 2871

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ANDREW SCHECHTER
PRIMARY EXAMINER